**PATENT** #Y2-0524-UNI **CERTIFICATE OF MAILING** Case #F7557(V)

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on January 17, 2002

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Date of Signature

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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Tan et al.

Serial No.:

09/964,006

Filed:

September 26, 2001

For:

COMPOSITION COMPRISING A FAT PHASE, VEGETABLE MATTER AND

SALT

Edgewater, New Jersey 07020 January 17, 2002

# SUBMISSION OF PRIORITY DOCUMENT

**Assistant Commissioner for Patents** Washington, D.C. 20231

Sir:

Pursuant to rule 55(b) of the Rules of Practice in Patent Cases, Applicant(s) is/are submitting herewith a certified copy of the European Application No. 00308439.9 filed September 26, 2000, upon which the claim for priority under 35 U.S.C. § 119 was made in the United States.

It is respectfully requested that the priority document be made part of the file history.

Respectfully submitted,

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Eűropäisches **Patentamt** 

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Bescheinigung

Certificate

Attestation

Die angehefteten Unterlagen stimmen mit der ursprünglich eingereichten Fassung der auf dem nächsten Blatt bezeichneten europäischen Patentanmeldung überein.

The attached documents are exact copies of the European patent application conformes à la version described on the following page, as originally filed.

Les documents fixés à cette attestation sont initialement déposée de la demande de brevet européen spécifiée à la page suivante.

Patentanmeldung Nr.

Patent application No. Demande de brevet n°

00308439.9

Der Präsident des Europäischen Patentamts; Im Auftrag

For the President of the European Patent Office

Le Président de l'Office européen des brevets p.o.

I.L.C. HATTEN-HECKMAN

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# Eüropäisches **Patentamt**

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# Blatt 2 der Bescheinigung Sheet 2 of the certificate Page 2 de l'attestation

Anmeldung Nr.: Application no.:

Demande n\*:

00308439.9

Anmeldetag: Date of filing: Date de dépôt:

Anmelder: Applicant(s): Demandeur(s): UNILEVER PLC

London EC4P 4BQ UNITED KINGDOM

Bezeichnung der Erfindung: Title of the invention: Titre de l'invention:

Composition comprising a fat phase, vegetable matter and salt

In Anspruch genommene Prioriät(en) / Priority(ies) claimed / Priorité(s) revendiquée(s)

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COMPOSITION COMPRISING A FAT PHASE, VEGETABLE MATTER AND SALT

#### Field of the invention

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The present invention relates to edible compositions containing a fat phase and vegetable matter, such as onions, garlic, carrots, peppers, herbs, or mixtures thereof.

10

## Background of the invention

Vegetable matter such as onions, garlic, carrots, peppers, herbs and mixtures thereof are used in many different

15 dishes to provide flavour, either fresh/raw or in (freshly) fried form. Unfortunately, such fresh products are not always available, and dried or deep frozen vegetable preparations are used. These preparations offer inferior quality, and solutions have been proposed to overcome this.

20 For example, in US 4,572,836 edible sterilised herb compositions are disclosed, in which the herbs are presented in the form of a puree or paste of the (otherwise fresh) herbs in oil. Oil is present in 25-50%, herbs in amounts of 40-65%, and the compositions further contain 25 salt, preservative and acid.

With respect to onions, frying diced or sliced onions form usually the start of the preparation of many dishes, e.g. by frying or simmering, prior to mixing in e.g. meat, 30 other vegetables, stock, thickeners or mixtures thereof.

Received 26-Sep-00 15:24

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TO-THE PATENT OFFICE

Page 09

This requires the need for cutting or chopping onions, which can be perceived as burdensome and a nasty task due to the aromas liberated. The same applies for other members of the botanical genus of Allium, such as garlic. Hence,

- 5 there is a need for compositions that provide onions (or other members of the genus Allium) that are already cut in slices or chopped in dices, and preferably, the onions should have an appearance close to freshly cut or chopped onions (i.e. preferably not fully dried, pre-fried or
- 10 frozen). Furthermore, it is preferred that the product is ambient stable. As solution to this, formulations have been marketed that contain chopped, fresh (or nearly fresh) onions in admixture with oil or fat, and some of the compositions do further contain preservatives and/or salt.
- 15 Salt may act as preservative and/or flavour enhancing agent. Such compositions are easy in use, as the oil (in which onions are usually fried) is already present in the composition, and simply dosing the oil/onion mix in the frying pan is sufficient to start preparing the dish by 20 frying or simmering.

Although the solutions that have been developed and are discussed above solve some of the problems involved, drawbacks are still present. This is in particular the case

25 for formulations containing large amounts of onions.

Freshly cut or chopped onions contain considerable amounts of water; part of which is released when such chopped onions are stored, e.g. in oil or fat. This appears in particular when next to onions and oil also salt is

30 present. The first few percent of water will remain not or

Received 26-Sep-00 15:24

hardly visible, but if more water is released a layer of water may separate, which is unattractive. This is the same to a variable degree for other vegetable matter (that may be used in stead of or next to the onions) as well. such as 5 garlic, carrots and peppers.

# Summary of the invention

Hence, there is a need for a composition that provides

10 vegetable matter such as onions, garlic, carrots, peppers,
herbs, or mixtures thereof in oil or fat, preferably in
admixture with salt, which compositions show limited or no
phase separation during several weeks or months upon
storage.

15

It has now been found that the above may be achieved (at least in part) by an edible composition comprising (in percentage by weight):

-	oil or fat	10		60 g	
20 -	vegetable matter	35	-	85 %	
-	salt	0.05	-	30 %	
<b>,</b>	water-binding agent	0.05	_	4.5 %	•

In the above compositions, the minor amount of water25 binding agent will bind part or all of the water that may
be liberated from the vegetable matter. Following this,
water that may be liberated from the vegetable matter will
to a large extent hardly or not visible to the consumer.

30

## Detailed description of the invention

In the compositions according to the invention, some water will still be liberated by the vegetable matter (e.g. 5 onions), but be bound by the water-binding agent, and hence phase separation (resulting in a water layer) is less likely to occur. The water-binding agent is preferably a thickener. Most preferred thickeners are gums, starch, starch derivatives or mixtures thereof.

10

Although a wide range of vegetable matter can be used in the compositions according to the present invention, the invention is in particular suitable for carrots, peppers, members of the botanical genus of Allium, herbs, spices, or 15 mixtures thereof. Most preferred species in the genus of Allium are onions, garlic, leek, shallots, chives, or mixtures thereof.

The invention is in particular suitable when the vegetable 20 matter is present in a particulate form (1.e. particles exceeding a size of lxlxl mm), or solid particles such as slices, although part of the vegetable matter may be present as puree. Preferably, the amount of vegetable matter is 50-75% wt, based on the total composition. The 25 vegetable matter is preferably fresh or in a form that resembles fresh vegetable matter, as opposite to fully dried or fully cooked vegetable matter. Nevertheless, it may be preferred to have some pre-treatment of the vegetable matter, which may include a blanching operation, 30 or removing part of the water content. However, it is

preferred that such vegetable matter still contains at least 50% (wt) of the water, based on its fresh form.

The amount of fat or oil (taken together) is preferably 20-5 40% wt, based on the total composition. Likewise, the (total) amount of salt in the composition is preferably 1-20%, and more preferably 1-15% wt. Usually, the salt will be ordinary kitchen salt (ie. NaCl), although other matter normally used in kitchen salt such as iodine and iodine 10 compounds may be present as well. Also, part of the salt may be another salt than NaCl, such as KCl.

The amount of the water-binding agent is preferably 0.5-3% wt.

The composition according to the invention may further comprise one or more of: flavours, preservatives, colorants, acids. Regarding acids, in particular organic acids such as citric acid is preferred to reduce the pH,

20 thereby increasing microbial stability. Preferably the pH is below 5, more preferably below 4.5.

For enhanced physical stability of the composition according to the invention, the oil or fat used may contain 25 0.1-20% (based on the total amount of oil or fat present) of fat solid at room temperature, preferably hardstock fat crystals such as RP70 or RPh70. More preferably this amount is 1-10%. The fat phase may further contain other components in small amounts, like lecithin 0.01-3% as anti-30 spatter agent.

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#### **EXAMPLES**

Fresh onions were diced to an approx. size of 5x5x7 mm, and mixed (for 3 minutes) with salt, citric acid and sodium 5 bisulphite in the following amounts:

Onions dices	79.18
Salt	20
Citric acid	0.8
10 Na Bisulphite	0.02
Total	100.0 %

An oil mixture containing soy bean oil (BO) and 5% of hardened fat crystals (RPh70) was prepared. All other minor 15 ingredients were added to the oil phase. The onion fraction (also containing the garlic paste) was added to the oil phase, and mixing was continued for 10 minutes.

The final composition was:

20	-	oil blend		25 %		
	-	onion pieces	approx.	57 ૬		
	-	garlic paste		2.6	હ	
	-	salt		12 %		
	-	citric acid		0.4	8	
25	-	bisulfite		0.00	8 <i>8</i>	
	-	flavours		2.4	G <sub>D</sub>	
	-	Ultrasperse M (starch,	ex NSCC)	0.6	8.	
	Th	e oil blend contained S	% hardened	fat	(RPh70),	the

remainder was liquid oil (BO).

From the above composition, 84 samples were stored for 14 days at 30-35°C. None of the 84 samples showed visual phase separation.

5 As control, 84 samples were prepared along the above lines, but not containing Ultrasperse (or other starch). The result was that 65 out of 84 (77%) did show visual phase separation.

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#### CLAIMS

1. Edible composition comprising (in percentage by weight):

_	oil or fat	10	_	60 §
-	vegetable matter	35	-	85 %
-	salt	0.05	_	३० %
-	water-binding agent	0.05	_	4.5 %.

- Composition according to claim 1, wherein the waterbinding agent comprises a thickener.
- 3. Composition according to claim 2, wherein the thickener comprises an edible gum, starch, starch-derivative or mixture thereof.
- 4. Composition according to claim 1-3, wherein the vegetable matter comprises carrots, peppers, members of the botanical genus of Allium, herbs, spices, or mixtures thereof.
- 5. Composition according to claim 4, wherein the members of the genus of Allium comprise onions, garlic, leek, shallots, chives, or mixtures thereof.
- 6. Composition according to claim 1-5 wherein the vegetable matter not being herbs and spices is present in sliced, particulate or puree form.

- 7. Composition according to claim 1-6, wherein the vegetable matter not being spices contain at least 50% (wt) of the water, based on its fresh form.
- 8. Composition according to claim 1-7 wherein the amount of oil or fat is 20-40% wt.
- g. Composition according to claim 1-8 wherein the amount of vegetable matter is 50-75% wt.
- 10. Composition according to claim 1-9 wherein the amount of salt is 1-15% wt.
- 11. Composition according to claim 1-10 wherein the amount of water-binding agent is 0.5-3% wt
- 12. Composition according to claim 1-12 further comprising one or more of: flavours, preservatives, colorants, acids.
- 13. Composition according to claim 1-12, having a pH of less than 4.5.
- 14. Composition according to claim 1-13, wherein the oil or fat contains 0.1-20% hardstock fat crystals, based on the total amount of oil or fat present.
- 15. Composition according to claim 1-14, further comprising 0.01-3% (wt) lecithin.

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## ABSTRACT

Edible compositions containing a fat phase and vegetable matter, such as onions, garlic, carrots, peppers, herbs, or mixtures thereof. Said composition is suitable for food preparation processes, such as frying or simmering.

TOTAL P.18

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